2011 Annual Drinking Water Quality Report (Consumer Confidence Report)

City of Killeen www.killeentexas.gov

Phone No: (254) 501-6500

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

The City of Killeen is dedicated to providing an adequate supply of safe and reliable drinking water. Our employees take pride in delivering water to your tap that meets or exceeds all federal (EPA) drinking water standards. This report is a summary of the quality of water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. Even though our water met or exceeded all requirements, we are providing this information so that you become more knowledgeable about your drinking water.

Water Sources:

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land, or through the ground, or falls through the air, it accumulates naturally occurring minerals and, in some cases, chemical or biological substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants. Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily cause for health concerns. For more information on taste, odor, or color of drinking water, please contact the City of Killeen Water & Sewer Services Department at (254) 501-6500.

Where do we get our drinking water?

City of Killeen drinking water is obtained from a surface water source, Belton Lake. The Texas Commission on Environmental Quality (TCEQ) has completed a Source Water Susceptibility assessment report for selected drinking water systems. This report describes the susceptibility and types of contaminants that may come into contact with the drinking water source based on human activities and natural conditions. The Bell County Water Control & Improvement District No. 1 from which the City of Killeen purchases water received the assessment report. For more information on source water assessments and protection efforts at our system, please contact the City of Killeen Water & Sewer Services Department at (254) 501-6500.

Special Notice for the elderly, infants, cancer patients, persons with HIV/AIDS or other immune problems:

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (1-800-426-4791).

FOR MORE WATER QUALITY INFORMATION

Bell County Water Control & Improvement District No. 1, P.O. Box 43, Killeen, Texas 76540-0043, (254) 501-9243. http://www.wcid1.org
Texas Commission on Environmental Quality (TCEQ), http://www.tceq.texas.gov
EPA Safe Drinking Water Hotline, (800) 426-4791 or http://water.epa.gov
Water Billing Questions – City of Killeen Utility Collections, (254) 501-7800
Water or Sewer Problems/Emergencies – City of Killeen Water & Sewer Services, (254) 501-6500
City of Killeen Website www.killeentexas.gov

En Espanol

Este informe incluye informacion importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en espanol, favor de llamar al tel. (254) 501-6500 para hablar con una persona bilingue en espanol.

Public Participation Opportunities

The City Council meets in regular session on the second and fourth Tuesdays of each month in the Council Chambers located in the Killeen City Hall building at 101 North College Street. Council workshops are also scheduled each month. To find the next scheduled meeting, visit the City of Killeen Website www.killeentexas.gov or call Killeen City Hall at (254) 501-7700. The Lake and River Cleanup Program is an effort between Keep Texas Beautiful, Texas Commission on Environmental Quality, and the City of Killeen. If you would like to participate, contact the Water & Sewer Services Department at (254) 501-6500 for more information.

ALL drinking water may contain contaminants.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. When drinking water meets federal standards, there may not be any health-based benefits to purchasing bottled water or point of use devices. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Backflow Prevention and Cross Connection Control

Under Texas (30 TAC, §290.46(j)), a customer service inspection (CSI) is required for each service connection before continuous water service can be provided. A municipality is also required to have a backflow prevention or a cross connection control program. No water connection from any public drinking water supply system shall be allowed to any residence or establishment where an actual or potential contamination hazard exists unless the public water facilities are protected from contamination. Under the Federal Safe Drinking Act of 1974, and the rules adopted by the Texas Commission on Environmental Quality under 30 Texas Administrative Code Chapter 290, the water purveyor has the primary responsibility for preventing water from unapproved sources, or any other substances from entering the public potable water system. For more information on Backflow Prevention and Cross Connection Control please call (254) 501-6500 option 4.

About the Following Pages

The pages that follow list the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

DEFINITIONS

Maximum Contaminant Level (MCL) - The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.
Maximum Residual Disinfectant Level (MRDL) - The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.
Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

ABBREVIATIONS

NTU - Nephelometric Turbidity Units
MFL - million fibers per liter (a measure of asbestos)
pCi/L - picocuries per liter (a measure of radioactivity)
ppm - parts per million, or milligrams per liter (mg/L)
ppb - parts per billion, or micrograms per liter (µg/L)
ppt - parts per trillion, or nanograms per liter
ppq - parts per quadrillion, or picograms per liter

WATER QUALITY DATA TABLE

The table below lists all the contaminants that were detected in your drinking water during calendar year 2009. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Inorganic Contaminants

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2008	Barium	0.06	0.06	0.06	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
2011	Fluoride	0.50	0.24	1.03	4	4	ppm	Erosion of natural deposits; water additive, which promotes strong teeth; discharge from fertilizer and aluminum
2011	*Nitrate	0.1925	0.05	0.25	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

***Nitrate Advisory – Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for periods of time because of rainfall or agriculture activity. If you are caring for an infant you should ask for advice from your health care provider.**

Radioactive Contaminants

Collection Date	Contaminant	Maximum Level	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contaminant
06/18/2009	Beta/photon emitters	5.5	4-5.5	0	4	Mrem/yr	N	Decay of natural and man-made deposits

Synthetic Organic Contaminants Including Pesticides

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Violation	Source of Contaminant
2011	Atrazine	0.13	0.13	0.14	3	3	ppb	N	Runoff from herbicide use on row crops

Maximum Residual Disinfectant Level								
Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2011	Chloramine Residual	2.6825	0.50	4.7	4	4	ppm	Disinfectant used to control microbes.

Disinfection Byproducts							
Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2011	Total Haloacetic Acids	14.0	11.3	17.2	60	ppb	Byproduct of drinking water disinfection.
2011	Total Trihalomethanes	24.8	19.1	31.3	80	ppb	Byproduct of drinking water disinfection.

Unregulated Contaminants						
Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.						
Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2011	Chloroform	6.9	5.6	8.6	ppb	Byproduct of drinking water disinfection.
2011	Bromoform	2.0	1.1	2.7	ppb	Byproduct of drinking water disinfection.
2011	Bromodichloromethane	9.0	7.1	12.0	ppb	Byproduct of drinking water disinfection.
2011	Dibromochloromethane	6.6	4.5	8.7	ppb	Byproduct of drinking water disinfection.

Turbidity						
Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.						
Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2011	Turbidity	0.26	100.00	0.3	NTU	Soil runoff.

Total Coliform					
Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are hardier than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.					
Year	Contaminant	Highest Monthly % of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2011	Total Coliform Bacteria	3		Presence	Naturally present in the environment.
Fecal Coliform REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.					

Lead and Copper						
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.						
Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action	Action Level	Unit of Measure	Source of Contaminant
2009	Lead	0.00474	0	0.015	ppm	Corrosion of household plumbing systems; erosion of natural deposits.
2009	Copper	0.455	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Total Organic Carbon						
Total organic carbon (TOC) no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.						
Year	Contaminant	Average Level	Minimum Level	Maximu Level	Unit of Measure	Source of Contaminant
2011	Source Water	3.97	.59	12	ppm	Naturally present in the environment.
2009	Drinking Water	.14	.07	.28	ppm	Naturally present in the environment.
2009	Removal Ratio	53.51%	41%	66%	% removal*	NA
* Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.						

Secondary and Other Constituents Not Regulated							
(No associated adverse health effects)							
Year or Range	**Constituent**	**Average Level**	**Minimum Level**	**Maximum Level**	**Secondary Limit**	**Unit of Measure**	**Source of Constituent**
2011	Bicarbonate	155	154	155	NA	ppm	Corrosion of carbonate rocks such as limestone
2008	Calcium	52.4	49.6	53.9	NA	ppm	Abundant naturally occurring element
2011	Chloride	21	18	23	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
2013 2008	Copper	0.001	0	0.003	1	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
2008	Hardness as Ca/Mg	174	168	177	NA	ppm	Naturally occurring calcium and magnesium
2013 2008	Magnesium	10.5	10.3	10.8	NA	ppm	Abundant naturally occurring element
2013 2008	Manganese	0.002	0.002	0.003	0.05	ppm	Abundant naturally occurring element
2013 2008	Nickel	0.002	0.002	0.002	NA	ppm	Erosion of natural deposits.
2011	pH	7.5	7.4	7.6	>7.0	units	Measure of corrosivity of water.
2011	Sodium	12.5	12.4	12.6	NA	ppm	Erosion of natural deposits; byproduct of oil field activity.
2011	Sulfate	25	23	26	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2011	Total Alkalinity as CaCO3	127	126	128	NA	ppm	Naturally occurring soluble mineral salts.
2011	Total Dissolved Solids	221	190	221	1000	ppm	Total dissolved mineral constituents in water.